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ORIGINAL ARTICLES.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

ABDOMINAL TRAUMA.*

By R. O. SIMMONS, M.D., F.A.C.S., Alexandria, Louisiana.

The subject which I have chosen is one which most of us, as surgeons or general practitioners, must frequently consider and one which most often gives us great concern.

The thought which prompted me to prepare a paper on this subject is due to the alarming increase in number of such injuries, brought about by the advent of the high powered automobiles, motor trucks and those agents of death known as the whirlwind circular saw and the log skidder.

Abdominal trauma or injuries of the abdomen and its viscera resulting from external violence are of such frequent occurrence that I feel that a few minutes consideration of all the underlying and important features would not be amiss at this particular time, especially when we have so many general practitioners present, for, after all, the general practitioner is the first to be called in such cases and upon him is placed the re-

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sponsibility of deciding, and deciding quickly, as to the proper step to take.

Penetrating wounds of the abdomen usually point to a comparatively easy diagnosis, but non-penetrating wounds of the abdominal viscera are very perplexing and time being a prime factor, it behooves all of us to be on the lookout for the unexpected, remembering that the mortality in these cases is very high at best.

On being called to see such cases we must consider carefully the history of the injury and recall something of the physics governing such injuries. One should consider whether, as Deaver classifies them, they are compressive, percussive or concussive. Compressive or crushing violence may cause the tear or rupture of both solid and hollow viscera; compression applied over the abdomen in a progressive manner, such as being rolled between two objects in a narrow space or being run over by an automobile or truck may not only rupture the stomach, liver or spleen, but the intestines may be ruptured or torn from the mesenteric attachment and their blood supply cut off.

If the abdominal muscles are rigid and contracted in anticipation of a blow, as in athletic sports, the viscera are less likely to suffer, than if the blow is unexpected and the viscera unprotected by the board-like abdominal muscles. If a viscus is enlarged from any cause whatever, physiological or pathological, the liability of injury is greatly increased. If the stomach, intestines or the urinary bladder are full the chance of injury to these viscera is increased. Extreme muscular contraction or activity may cause visceral injury. An indirect blow on any part of the body, where the force can be directly or indirectly transmitted may cause abdominal visceral injury.

Another fact which must be remembered is that severe visceral damage may follow an apparently trivial accident or vice versa; and, for this reason any symptom referable to an abdominal blow should be given due weight, for I repeat, insignificant blows often result in serious late symptoms,—too late for an early diagnosis, and a delayed diagnosis nearly always means a fatal termination.

In considering the viscera likely to be injured we wish to include those lying in the abdominal cavity proper. The urin-

ary bladder, especially when distended, is a very frequent victim. The mesentery, the great blood vessels, the gall bladder and pancreas with their ducts are occasionally though not commonly injured; but we would give more consideration to the greater organs underlying the abdominal wall,—the liver, spleen, stomach and intestines with their attachments, and the kidneys.

How are we to recognize such injuries and how are we to handle them? The early symptoms are the important ones for the later manifestations, coming on when the patient is beyond relief, are so readily appreciated that they need scant consideration. Unfortunately the signs and symptoms are not always constant; they do not always appear early and often bear no direct relation to the severity of the injury.

(a) Of the symptoms seen *pain* is the most constant and most dependable, for it influences the patient to consult his physician for relief. Unfortunately it is not always long lasting and does not always appear immediately after the injury is received. It is not like the pain of an inflammation, but more like that pain which accompanies a ruptured extra-uterine pregnancy,—as if something had torn or suddenly given way.

(b) Associated with pain there may be elicited either local or general *tenderness* with which is always allied *rigidity* in varying degrees ranging from a local tenderness to a board-like stiffness of the muscles. Reiddel asserts, "the most important sign of abdominal injury is rigidity of the abdominal muscles and this follows immedately when the abdominal cavity becomes soiled with stomach and intestinal contents or blood."

While having these two points in mind, I wish to stress another point in diagnosis. Do not administer an opiate with the view of giving your patient immediate comfort, before a diagnosis has been made, for such measures will abolish pain and to a considerable extent cause the rigidity of the abdominal muscles to disappear, thus depriving you of one of two valuable signs for an early diagnosis.

(c) Nausea and vomiting are usually early symptoms, and if they persist they are indicative of a serious traumatic lesion. Vomiting of blood usually indicates injury to the stomach or duodenum, though its absence does not exclude injury to these viscera.

(d) *Diminished or absent peristalsis* is one of the important signs, though often overlooked, according to Sherk, who "would place more dependence on it than any other symptom."

(e) This group of symptoms, including a facial expression of anxiety, thirst, accelerated pulse and respiration, with slight or exaggerated signs of shock and hemorrhage complete the picture according to the severity and extent of the injury.

I wish to present two case histories which will illustrate the points in diagnosis and treatment.

Case 1. J. G., male, white, age 9, while crossing the street, was run down by a touring car weighing 2700 pounds, the wheels of which passed across his body. He was carried to the local hospital, where I saw him a few minutes later. His face was pale and he had an expression of anxiety; pulse and respiration accelerated; complained of thirst and general abdominal pain; slight nausea but no vomiting; urine free from blood; abdominal walls rigid but not distended. The only external sign of injury was a slight abrasion of the skin over the right anterior superior spine of the ilium. Decided to make an exploratory laparotomy. Incision made in the midline below the umbilicus. Abdominal cavity found filled with blood, but no injury to the viscera of the lower abdomen. Incision extended upward to left of umbilicus. Spleen found macerated and partially detached. There was also a laceration of the posterior perietal peritoneum, near the spleen, about two inches long. Splenectomy done, followed by suture of the torn peritoneum. After saline infusion patient returned to bed showing signs of shock and hemorrhage. Uneventful recovery.

This case merely illustrates that severe visceral injuries may occur with slight signs of violence. Delayed operation with hemorrhage as active as it was in this case would have lessened the chances of recovery and probably resulted fatally.

Case 2. A. D., male, white, age 9, while playing, was kicked in abdomen by brother, age 5. He suffered slight pain and some nausea, but after a short interval was up and playing, as if nothing had happened. He went to bed that night as usual not complaining, and the next morning ate some breakfast and attended school. That night he did not feel well and the following day his parents decided not to let him attend school, giving him a laxative, as his bowels had not moved for two days. As usual, he ate a light supper and went to bed. The next morning he did not appear at breakfast, and on inquiry he was found in bed complaining of abdominal pain near the umbilicus. He had had some cramps all that day and suffered some all that night, and on the next day—the fourth day—the family physician was called and immediately recognized a serious abdominal case needing surgical interference. He was sent to the local hospital. After securing an indefinite history and recognizing unmistakable signs of peritonitis, we decided, as a last resort, to operate, though only after giving an unfavorable prognosis, hoping to find a ruptured appendix or something to justify an operation. We made the incision in the midline and by chance directly over the lesion, locating immediately a rupture of the peritoneal coat of the ilium about one-sixth of an inch in diameter, triangular in shape

and extending into the musculature to about the size of the point of a lead pencil. There was a small amount of ugly looking fluid and adhesions about the small intestines. Fluid mopped out and intestinal rent sutured with silk; rubber drain introduced and abdomen closed. Patient put to bed and death followed fifth day after injury.

This case will show the attention these cases deserve and how delayed symptoms and late diagnosis tends to increase the number of fatal terminations. The apparently trivial injury produced few symptoms, but a serious lesion, which was not markedly manifest until symptoms of peritonitis set in.

A certain diagnosis in these cases is extremely difficult and at times impossible, but by careful consideration of the history of the injury and close scrutiny of all signs and symptoms we can usually arrive at a diagnosis before it is too late. In definite cases of injury to the abdominal viscera there is but one indication,—open the abdomen. It is better to have opened an abdomen and found all well than to wait and deprive your patient of all chances of life. I agree with Goodrich, who urges an immediate aseptic abdominal section in every doubtful case of abdominal injury.

SUMMARY.

The increasing cases of abdominal injury resulting from automobile traffic and other causes brings about a situation demanding closer study of these cases.

An early diagnosis in these cases is imperative and the responsibility rests upon the general practitioner.

Each case demands close study not only as to signs and symptoms but careful attention to the history of the accident.

The only safe policy is to do an exploratory laparotomy in all borderline cases, and in all cases which present serious symptoms or develop such symptoms at any reasonable time following an injury to the abdomen.

DISCUSSION.

Dr. E. D. Martin (New Orleans): I do not believe any more important paper will be read in this meeting. Much he says is true, and I do not know of any class of trauma that is more difficult to diagnose. Of course, it is easy enough to say you have an abdominal injury, but the diagnosis is one of the most diffcult I know. You may have no symptoms in the beginning. You have a slight injury, amounting to nothing, but in two or three days the pathological condition is such that it is beyond hope of cure. Externally, you rarely have signs of injury. I saw a patient, a driver, who had a heavy truck with iron tires run over his abdomen. He was sent to the Charity Hospital in New Orleans, and the only external evidence was a slight mark below the umbilicus. But he died in five minutes, and the autopsy showed that the aorta was cut in two. The external

symptoms may not manifest themselves for two or three days afterwards. Of course, we know that the liver and bladder and kidneys are more apt to rupture, but the injuries are not always so serious as that. We may have injuries to the intestines also. The history is a hard question—how did it occur and what is the cause, and how much injury could such trauma produce at the time? All these factors have to be taken into consideration. The pulse is sometimes an indication, but not always. You may have a rapid pulse from shock or from fear. I have seen persons after an automobile accident who had a pulse of 140, even though they were not injured, so you see the psychic element enters largely into these conditions. However, if it continues then you are dealing with a more or less serious condition. I agree that in case of doubt an exploratory laparotomy is justified. Your patient should be kept under observation and if things do not improve do not hesitate to go in. I want to emphasize the fact that these cases should be treated as serious conditions and one is less liable to make a mistake.

Dr. R. O. Simmons (closing): I simply want to emphasize to the general practitioner the necessity of watching these patients very closely whether at the time of the injury you consider it serious or not. It is well to keep them under close observation for at least twenty-four to forty-eight hours. I want to thank Dr. Martin for his discussion and you gentlemen for listening to me.

BLOOD PRESSURE OBSERVATIONS IN PSORIASIS, LICHEN PLANUS AND ERYTHEMATOUS LUPUS.*

By J. N. ROUSSEL, M.D.

From a review of the literature, especially the text-books, it would appear that the blood-pressure has not, up to this time, impressed the "skin-man" with possessing any value in the diagnosis and treatment of any skin disease, if we are to judge by the absolute lack of reference to the subject.

That it may not be generally of value in skin diseases I am quite willing to admit, but I am strongly of opinion, that in at least a few, it is of distinct value especially in directing the treatment and I believe that some day in the not far distant future, it will be considered of some diagnostic import in a few diseases about which we know little at present.

For the past few years, I have been observing the blood-pressure in all of my patients who were victims of diseases not distinctly parasitic such as Lichen Planus, Psoriasis and Erythematous Lupus and I was most astonished to find that in the three diseases mentioned there was almost a constant low pressure which seemed to drop as the disease progressed. In those cases in which the blood-pressure was not extremely low, it was always very much lower than we would suspect.

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In Lichen Planus the blood-pressure appears to be low from the beginning, but in Psoriasis and Lupus Erythematous the pressure was generally lower in the old cases than in the early ones, mostly ranging in the old cases between 85 and 95 millimeters.

In an apparently strong and healthy individual this certainly appears queer to me, and to say the least, unexpected.

Why this should be so, I am at a loss to divine, but, that it is so, I am quite certain, at least in those who have come to me.

That it has any bearing on the cause of these diseases I am not at all certain, but I have a strong suspicion, born of the results of the treatment of these conditions, that the low blood-pressure is at least somewhat indicative of the direction from whence the wind blows, so to speak.

Whether these diseases are caused by specific agents which in turn depress the blood-pressure, or whether they are merely the outward manifestations of a derangement of the blood-pressure raising apparatus (endocrinous or otherwise) is the question to be decided.

If the diseases in question are caused by specific agents depressing the blood-pressure it would seem the part of wisdom to exert our efforts in the direction of eliminating them, whatever they are, and doing our utmost to keep the patient free of the diabolic stuff, but, on the other hand, if the diseases are caused by a derangement of the blood-pressure raising mechanism, from whatever cause, our efforts should be directed towards establishing the "locus minoris resistentiae" and doing that which lies within the realm of possibilities in the way of correcting the defective mechanism.

That they might be caused by either or both is quite within reason, but from my limited experience I am inclined to the belief that these diseases are directly dependent for their existence upon a derangement of the blood-pressure raising apparatus which could have its origin from almost any source, physical or chemical.

I believe this accounts for the various and sundry ways in which these diseases have appeared to originate. Some will begin after a severe illness; some after a great nervous shock, and others after some injury; all or any of which might in turn

disarrange the blood-pressure raising apparatus, which derangement might reasonably be more or less permanent, as it appears to be in the case of Psoriasis and Lupus Erythematosus.

I have in several cases of Psoriasis of many years standing seen the eruption entirely disappear by simply raising the blood-pressure from 85 to 120, only to see it reappear when the blood-pressure dropped, which invariably occurred upon continuing the medication, which was pituitrin.

This agent seems to raise the blood-pressure quite satisfactorily for a few days, but it will not stay "put" so to speak, which means that the attack is being made in the wrong direction, very likely.

This does not seem to hold true for Lichen Planus. In this disease, Pituitrin has acted like magic in four very severe cases. The blood-pressure went up under its use, stayed up, and the eruption entirely vanished in less than ten days, which to my mind is remarkable for Lichen Planus. The eruption has not recurred in either of the cases. Two of them were treated two years ago, and to my certain knowledge have had no recurrence.

I have made no observations along this line with Lupus Erythematosus, except to establish the fact, that all of the cases which have come to me in the past three years have had an extremely low blood-pressure.

DISCUSSION.

Dr. J. M. King (Nashville, Tenn.): There have really been no experiments made upon this subject as far as we know. This is entirely new to me. As to the blood pressure in psoriasis and lichen planus, it is just the opposite of what we would expect, as Dr. Roussel has stated. All these years we have been endeavoring to find the parasite of psoriasis and lichen planus, but we have come to believe that they are caused by certain physiological disturbances brought on either by long nerve strain or sudden shock, or faulty metabolism. But it is a question that will have to be studied more and carried under observation longer before we work out something with reference to the blood pressure.

I am rather surprised to learn that pituitrin relieved the doctor's patient. About the only influence it could have would be to raise the blood pressure, or it may be that the introduction of pituitrin brought about some other change than the blood pressure that enabled the patient to recover. These are things we do not know as yet.

Dr. J. N. Roussel (closing): I have nothing more to say except I have brought this matter up because I wanted to start something. I do not know anything about lichen planus or psoriasis, but I thought there might be someone here who did, and I believe that in a disease of that type, a disease we know nothing about, even if we are not able to accomplish anything wonderful it is about time for us to start something, and possibly get something out of it.

NON-OPERATIVE TREATMENT OF URETHRAL STRICTURE.*

By H. W. E. WALTHER, M.D., F.A.C.S., New Orleans.

Urethral stricture rarely receives the attention it deserves. Only too few articles appear in our medical literature dealing with this important subject. That stricture of the urethra is met with less frequently than formerly is unquestionably a blessing to all concerned. Yet even today we see cases in which the severity of symptoms presented, along with the usual unsatisfactory experiences the patient passes through seeking relief, surely offers sufficient argument for presenting the matter before this society.

Unless urethral stricture be of congenital origin (which type is in the minority), its etiology is either traumatic or inflammatory. The condition is usually met with in patients whose urethræ have met with trauma while an inflammation in the canal was in progress. The result of such trauma is a cicatrization of the periurethral exudates which form scars in the urethral wall. These scars have a tendency to contract, diminishing the lumen of the urethra, and finally producing the condition known as stricture.

The common site of stricture within the urethra is at the bulbo-membranous juncture (70 per cent.); 15 per cent. are met with in the first three inches of the anterior urethra; and, 15 per cent. are encountered within the terminal two inches of the canal.

Stricture of the urethra is an incurable condition. Upon this point urological authorities everywhere agree. No intra-urethral operative procedure for the cure of the condition has ever stood the test of time. To the contrary, it can be shown that hundreds of sufferers have been made worse, and in some instances, irreparably mutilated by such operative interference. The urethrotome should be relegated to that limbo to which all instruments of the barbarous age have been consigned. Cutting a stricture in the urethra adds insult to injury. Each cut adds more scar tissue, as well as more trouble for the next physician who is called to treat the case.

It is therefore to the non-operative methods of treatment that we must devote our energies in order to relieve those

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suffering from this malady. Before taking up the different methods employed in urethral treatment by means of graduated instruments, a few brief remarks pertinent to the subject of stricture should not be amiss. Further, mention of the means by which we arrive at a correct diagnosis should be succinctly stated.

In order to be successful in the treatment of these cases certain facts must be impressed upon each patient. He must be informed of the fact that he has an incurable condition; that he will require urethral dilatations—at regular intervals—for the rest of his life; that if he obeys the advice of his physician he can live his normal span of years in comfort and contentment.

A case of neglected urethral stricture is not to be measured by the size of the urinary stream alone. For back pressure exerted upon those urinary organs above the strictured point, if allowed to go on indefinitely, will cause complications which will markedly shorten the life of the individual. We refer particularly to serious disease of the bladder, ureters and kidneys, although the epididymes, seminal vesicles and prostate not infrequently also succumb to the bacterial invasion while struggling under the handicap.

The diagnosis of urethral stricture is not always easy. Several other conditions may prevent a patient from emptying his bladder. In like manner, factors apart from intrinsic narrowing of the urethral lumen may impede the passage of instruments into the bladder. Of the former conditions we must bear in mind not only hypertrophy or inflammation of the prostate gland, but also vesical stone, paresis of the detrusors, and congenital valve formations at the internal vesical sphincter or just within the posterior urethra. Of the latter conditions one must bear in mind the possibility of dealing with a urethral spasm, with false passages previously produced by rough instrumentation of the canal, with congenital malformations, with impacted urinary stones, or with tumor obstruction—either within the urethra or exerting pressure on the lumen from without. Time will not permit our taking up the differential diagnosis of these various conditions. We will content ourselves with describing the means most practical for

passing instruments into the bladder where apparent urethral stricture exists.

The prime requisite in all urethral manipulation is gentleness. Asepsis should always be scrupulously observed. Local anesthesia had best be employed in dealing with elderly patients and those of a nervous or excitable temperament. The urethral dilatation is accomplished by means of filiforms, bougies and sounds. As urethral shock is to be avoided, it is far better, as routine, to combine gentleness, asepsis and local anesthesia, rather than be the cause of some untoward symptoms in a patient that appeared before to be in "smiling health."

The silk or metal olivary bougie or bougie à boule is of distinct value in diagnosing urethral stricture. Because they are less traumatising, silk instruments are ever to be preferred over steel instruments. The largest bougie the meatus will admit is passed until it meets an obstruction; then a smaller bougie is passed through the first constriction, down to one through which it, in turn, will not pass. In this way the location and caliber of each stricture band can be ascertained. Then too, by means of the olivary or acorn tipped instrument, upon attempting to withdraw such an instrument through a true stricture, a characteristic "hang" will be noted, when tip attempts to pass through the strictured band. This procedure definitely determines true stricture from spasm or other non-stricture obstruction. Where one meets with an abnormally small urethral meatus, meatotomy must be done before instrumentation can be contemplated.

Having determined the character and size of the stricture, one now proceeds to dilate, with either silk bougies or with steel sounds, beginning with a sized instrument commensurate with the smallest stricture band elicited. Whereas steel instruments are still much in vogue, they are being abandoned gradually for those constructed of silk because of the fact that the latter are so much less traumatising. The plan of instrumentation is usually as follows: Where the patient can void and where there is no need to hurry the case, the physician is usually satisfied with passing three bougies at one sitting. If, for example, the smallest bougie possible at the start is 12F., one would employ sizes 12 F., 14 F., and 16 F., at the first sitting. (It is necessary to have a set of instruments with the

even numbered sizes only.) Intervals between treatment are best gauged by the results obtained at each seance, but for general purposes dilatations had best not be given oftener than every five to seven days. The second dilatation begins where the physician left off before, in this instance, 16 F. And this time the patient's urethra is dilatated with instruments 16 F., 18 F., 20 F., and 22 F. This plan is continued until the urethra has been dilated to 28 F. It is not necessary to dilate over this size.

Periods of rest between visits to the physician will depend largely upon the resiliency of the stricture or strictures in the individual case. At first it is best to have him report back once every three months, then at six month intervals, and finally, if all goes well, he need present himself only once a year.

So-called impassable urethral stricture must be dealt with differently. Here the filiforms are of great value. Silk woven urethral filiforms taper to a very fine olivary tip and will pass through many tight strictures if properly manipulated. The modern method of employing filiforms in these cases is by combining them with followers, either in the form of steel sounds or silk bougies, the two instruments being joined by a screw-thread connection. The two types best known are the Le Fort and the Phillips outfits. The former has the steel follower while the latter has one of silk. The Phillips outfit is the one to use because it is least traumatising.

After preliminary asepsis and anesthesia, the urethra is filled with a water-soluble lubricant, such as K-Y Jelly, and the filiform gently introduced into the urethra. Should it catch at any point, it is withdrawn a ltte, rotated in a cork-screw fashion and re-introduced. If after repeated trials it appears to enter a false passage each time, it is left there, and another filiform is introduced alongside of it. This one might enter a false pocket too. But finally, if one persists long enough, the filiform will engage the stricture and pass through it. A silk bougie follower (about 12 F. to begin with) is screwed on to the flliform and after feeling assured that the connection between the two instruments is perfectly secure, the bougie follows the flliform through the stricture into the bladder. The filiforms readily curl up in the bladder and cause no damage. In this fashion larger bougies can be at-

tached, the plan as to sizes and number of instruments at a sitting is the same as before stated where the bougies are employed without filiform guides.

Finally, it must be stated that although all strictures of the urethra cannot be relieved by the non-operative methods I have here outlined, it is my firm belief that fully 90 per cent. of cases can be handled in this fashion. The worst types that one will occasionally meet with will, now and then, require surgical intervention. But, as already pointed out, internal urethrotomy should never be done. External urethrotomy will serve in some cases. The most satisfactory method undoubtedly is the one in which the surgeon does a suprapubic cystotomy and then performs retrogade urethral dilatation.

CONCLUSIONS.

1. Stricture of the urethra is an incurable condition.

2. Intraurethral operative procedures are un-surgical as well as mutilating. The urethrotome has no place in any surgeon's armamentarium.

3. Gradual or fractional dilatation of urethral stricture, by means of filiforms, bougies and sounds, repeated at intervals as indicated, is the rational method of treatment.

4. External urethrotomy or suprapubic cystotomy with retrogade dilatation is reserved for the severe type of cases which, fortunately, is in the vast minority.

DISCUSSION.

Dr. Paul J. Gelpi (New Orleans): I agree with Dr. Walther that undoubtedly the ideal method of treating stricture is by so-callel dilation. I say so-called dilation because when we consider the pathology of stricture and the purpose for which we use a sound, absorption of the fibrous mass, the treatment is really one of pressure. To obtain the best result the sound should be allowed to remain as long a time as compatible with the patient's and the doctor's own time. Most strictures respond to this treatment. However, I cannot agree with Dr. Walther regarding the use of the urethrotome. Whereas the urethrotomy is not my treatment of choice, my long experience has taught me that it is the best method to deal with elastic srictures that do not respond to dilation. Urethrotomy is a delicate operation and in the hands of a careful and long-experienced operator will give results without any undue mutilation. The type of instrument I used is one that cuts from behind forward. In strictures of sufficient calibre, hard and fibrous, I use the Otis instrument with a localizer which permits of cutting at the point of stricture only. In tight strictures I use the Rogers urethrotome. After cutting I dilate with a sound and place a retention catheter which remains for wenty-four hours. This prevents bleeding and minimizes chance of infection. After removal of the catheter, irrigations are practiced for four or five days and a sound is introduced. The urethra heals in ten to fifteen days. Dilation should be

practiced as in ordinary cases. I enjoyed very much Dr. Walther's paper, but I am of the firm opinion that the urethrotome still holds its place in urinary surgery.

Dr. M. H. Foster (Alexandria): This essay of Dr. Walther is so concise and comprehensive that little may be added except by way of qualification in regard to the unusual case which will sometimes turn up. My conception of the pathology of urethral stricture is that it develops by infiltration, proliferation, and hyperplasia. Early enough, before they have suffered too long from neglect, or too frequently from abuse, this process is still soft, granular and yielding, and is therefore amenable to treatment entirely by gradual dilatation and absorption as Dr. Walther postulates in 100 per cent of the cases.

Unfortunately, however, the advanced indurated stricture with scar tissue fully formed, and of "wooden hardness," has not as yet been completely eliminated, and this is the class which will resist dilatation absolutely. These are the sufferers who compel us to rescue from "Limbo" some appropriate form of surgical relief.

Koll of Chicago says that it is necessary to do urethrotomy upon 3% of strictures, which seems to me about right. I have cut two (2) strictures since my return from the army, both negroes, in which race the tendency to fibrosis is notorious.

Case 1: Age 38, chronic stricture for eight years, with multiple scrotal and perineal fistulae, and almost complete loss of urethra as such. Treated by a number of doctors who had lanced perineal and scrotal abscesses from time to time as required for relief and drainage. On repeated attempts I was unable to succeed in entering the bladder with a filiform. External urethrotomy was done but proved inadequate. Retrograde instrumentation by way of suprapubic cystotomy was accomplished with great difficulty, and a channel of sufficient dimensions could be established only by plastic surgery of the urethra. A No. 26 Pezzer was left indwelling in the urethra for 14 days, frequent irrigations were employed. Now he is at work in the round house and I am able to pass a 28 or 30 French bougie when he returns for dilatations. He has always been absolutely intolerant to metal sounds.

Case 2: Age 28, chronic stricture for six years, hard, unyielding annular formation for nearly one inch at fossa navicularis. At first I was under the impression that I was achieving some progress with the bougies of small size, but this erroneous impression was soon dissipated when I found at my third treatment that I could not pass a bougie any larger than the size employed at the previous time. In fact, the last largest size was scarcely tolerated at this time. I was dealing with a channel then very little larger than filiform caliber. Alternating periods of rest and gentle manipulation failed to secure any progress through this negro's rawhide-like ring. (We all know that rawhide is not well gifted with stretching qualities.) Finally I did an internal urethrotomy with an Otis urethrotome set at size 30. The results have been gratifying to me and comforting to the patient. His urethra will admit bougies size 28 and 30, and it has been now about one year since his operation.

In conclusion, I think the treatment of strictures must be predicated entirely upon the pathology of the case presenting. All of the soft, yielding, granular variety (over 95%) are amenable to absorption by gradual dilatation. Those which are hard, fixed, and unyielding, have developed permanent pathology, and belong in the surgical category.

Dr. Peter B. Salatich (New Orleans): I have seen this method used: You take a patient and no matter how many strictures he has, if you can pass a small filiform, allow this to remain in for twenty-four hours, and then pass another, and do this twenty-four

hours apart, until you have passed several. I have had several metal catheters made of different sizes. I introduce a metal catheter and allow it to remain in the urethra. In twenty-four hours there is enough absorption around the stricture for the patient to void between the canal and the catheter. After twenty-four hours I introduce a little larger one, and continue that until I can introduce one the size of my finger. To protect the patient from getting urethral fever, I clamp a urethral tube to the catheter and introduce argyrol and allow the patient to pass the argyrol between the catheter and the urethra. If the patient has no temperature and no chills, in about ten days he will be well of his stricture.

Dr. Charles L. Chassaignac (New Orleans): There is much to be commended in the paper of my friend, Dr. Walther, and I enjoyed it very much; but one little criticism I hope I will be permitted to make which is accounted for by the doctor's enthusiasm and comparative youth, and that is that he made his statements a little bit too emphatic. I appreciate particularly what he says about the possibilities of curing stricture by the method of so-called dilatation, which is by pressure and absorption.

I believe we still have the same indications for the treatment of stricture that we have had for years and years. We must use judgment and common sense and we cannot lay down a hard and fast proposition today any more than thirty years ago. Some strictures, and the majority, I agree, are to be treated by the use of dilatation. Others, as Dr. Gelpi has well said, are better treated by means of internal urethrotomy, although a much smaller percentage. We all realize, too, as shown in the case of the doctor just mentioned, that some still require external cutting measures. We ought not be tied down to any one measure, but simply use what is indicated in the particular case we have to handle.

One more point about the so-called dilatation and pressure as described by Dr. Gelpi. Please, when you utilize this measure, do not introduce a sound and take it right out as many do. You lose absolutely the essence of the treatment. The idea is the pressure, whether you do it by the actual routine that Dr. Walther has mentioned or not is not material, but when you have introduced into the urethra gently the largest instrument which can be tolerated by the patient, you should let it stay in not less than ten minutes at a time, and longer if you and your patient have the time. Then you get absorption. The process will go on between times. Each time you pass a larger instrument until you get the urethra of sufficient size.

To illustrate what I mean about not being too emphatic in making statements, I do believe that occasionally a patient with stricture CAN be cured, and I have been at the business long enough to be able to testify about some such cases. In other words, when a stricture is not too old and tough, and you apply pressure sufficiently long, following the method the doctor has so well brought out, gradually increasing the size as rapidly as possible, if you can keep that up and then lengthen the intervals between the introductions of the sound, the time comes when the patient can return in a year and you may pass the same sound without the slightest difficulty. He has had no trouble in the interval, and he can go three years or five years and you can still pass the same size. Under most circumstances I consider that patient is as much cured as we can cure anything. Of course, these instances are comparatively rare.

Dr. H. W. E. Walther (closing): Dr. Chassaignac spoke of common sense, and that was my idea in presenting the paper. We have heard so much nonsense about stricture that I wanted to bring some common sense to your attention.

I still maintain that the urethrotome has no place in our armamentarium. I feel just as emphatic on that point as ever. You cannot get a urethrotome into an impassable stricture. If you can get through, then use your filiform and sound. I still maintain that cutting scar tissue will add more scar tissue. You will get scar on top of scar and ultimately more stricture formation than if gradual dilatation had been done.

WHEN A DISEASED GALL BLADDER BECOMES SURGICAL.*

By L. C. CHAMBERLAIN, M.D., New Orleans.

At the very beginning, or I may say before the beginning of this paper, I wish to say, that as far as the selection of the title is concerned, all responsibility rests with the distinguished chairman of the section. He not only honored me with the invitation to present a paper, but at my request he also presented me with the subject. I am free to say I expected something concerning the upper abdomen, but not of the gall bladder.

One is surprised, you may say astounded, by the numerous articles in every Medical Journal on the various phases of gall bladder work. Men doing research, and celebrated surgeons who with almost unlimited clinical material and data at their disposal giving us such valuable contributions makes one whose opportunities are limited feel a delicacy in expressing an opinion when it concerns this subject.

It is with the greatest pleasure and expectation that I look forward to the arrival of a Medical Journal, any one of our several excellent ones will answer the purpose, for its an almost sure thing, some distinguished man will have something to say concerning the gall bladder, and one lives in hopes that at last some one has discovered a regular definite function for this organ or settled the question as to when to drain it, remove it, or clean it out and close it up.

With all this heavy artillery, if I may use the expression, maintaining an almost constant barrage against this objective, one is extremely loath to venture forward and follow, fearing the advance perhaps might be hasty or a little forward.

When a diseased gall bladder becomes surgical—we must admit, each and every one of us, that diseased gall bladders do become surgical and that a diseased gall bladder will eventually

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

require surgical treatment for relief of symptoms—is now a fairly established fact.

In order that we may classify the various groups of biliary symptoms the scheme formerly suggested seems adequate.

(1) The type in which all symptoms are gastric with nothing definite to direct one's attention to the right upper abdomen.

(2) That in which symptoms are referred to the right upper abdomen.

(3) Acute emergencies, such as empyema, gangrene and common duct obstruction, not forgetting malignancy. The first two types present the greatest difficulty. The reason for this is due to the fact that for a long time gall bladder lesions meant gall stones. The sooner we forget that such is the case the sooner we can hope for improvement in the surgical therapy of biliary lesions. Do not wait for jaundice and colic to make a diagnosis; neither is nausea and vomiting more essential for diagnosis than is jaundice.

We have passed through the stage of "Appendicular Dyspepsias" and we are forced to believe that 90% or more of instances in which the symptoms are gastric, the pathologic condition is remote from the stomach, and the clinical picture the result of reflex irritation arising from other portions of the gastro intestinal tract. So as we have been educated to the above named dyspepsia, so are we coming to recognize the "Biliary Dyspepsia."

The diversity of symptoms relieved by surgical intervention in diseases of the biliary tract is too widespread to be explained by contiguity inflammation originating in the gall bladder and ducts. Moreover, such an explanation can gain no support from the gross pathology observed during operative procedures. The fact remains, however, that patients are relieved of many and varied symptoms by dealing surgically with the local pathologic conditions of the biliary tract.

It is now well established that a gall bladder which in the gross shows little evidence of a pathologic condition can cause a diversity of clinical symptoms, which are relieved by its removal. The liver often presents gross pathology in a considerable number of cases, the result of infection from the biliary tract.

The really important part of the investigation of these patients is a carefuly taken history. This is often a difficult and formidable task as we are dealing with patients who have a history of gastro-intestinal disturbances extending over many years, so that many misleading answers to the usual questions are given, and one has to approach them from many angles. An inquiry as to the previous health of such patients will usually reveal a history of gastro-intestinal upsets and bilious attacks beginning when quite young and continuing with remission until seen at consultation. One of the importat physical factors to consider is, of course, not only the acute infection from which the patient has suffered, but also the chronic ones from which he may still be suffering, such as infected teeth, tonsils, or accessory sinuses.

Admitting that a diseased gall bladder will require surgical treatment for relief of symptoms and that the end results of surgical intervention show a higher percentage of cures, we can hope for still better results by following a careful routine of investigation when the abdomen is opened for exploration. With the history well in mind the following routine should be followed. The cecum should be delivered and its tonicity noted. The terminal ileum is examined for kinking. The presence or absence of pericecel or pericolic bands is noted. The glands of the mesentary are palpated. The appendix is removed and condition of the ileocecal valve is noted. Attention to the stomach and duodenum is directed to note the presence or not of ulcer or spasm.

The pancreas is then palpated. Having determined the presence or absence of a pathologic condition of these areas, the gall bladder and ducts are examined. To determine at operation whether a gall bladder is pathologic or not in the early stage of disease requires careful attention and observation. If the symptoms and history warrant an exploration and the other examination is negative with the gall bladder doubtful, bear in mind the hidden possibilities in this possibly innocent appearing organ and remove it.

Before closing we should remember the great aid and assistance to be obtained from the X-ray. A thorough gastro-intestinal examination is of the utmost help and in a large percentage of cases will call our attention to a diseased gall blad-

der, perhaps in conjunction with other lesions of the gastro-intestinal tract. I am sure where surgery is indicated the best results will be obtained by careful consideration of conditions as they present themselves and by attempting to adapt the technique of the most successful men to the various phases of the gall bladder as we find them.

DISCUSSION.

Dr. Peter B. Salatich (New Orleans): The more gall bladder work I do the more I fear. I think gall bladder surgery is one of the most treacherous and gives the highest mortality of any organ we have to remove in the abdominal cavity.

As far as diagnosis between an infected gall bladder and one containing stones, it has been my experience that if you palpate an infected gall bladder it is always painful, but no so with a gall bladder full of stones.

What to do with the gall bladder on operation. If you open the abdomen and find the gall bladder contains a good many adhesions, as a rule that is a diseased gall bladder through and through, and should be removed because simply draining will not cure your patient. While if it contains stones, is free from adhesions and no kinking you can drain the gall bladder and promise the patient more than if it were infected.

I think exploration is a ridiculous treatment. A man ought to decide what he will do when he enters the abdomen. It is either diseased or not, and simply working at it from the outside it is impossible to say which. Somebody has said there is no more trouble in removing a gall bladder than an appendix. That is true, but there is a reason for the high mortality in gall bladder surgery. A patient seldom comes after one attack. It is usually a long chronic trouble with intestinal complications and headaches. You have a diseased liver, you have a damming back of septic bile, and in removing the gall bladder you do not remove the infection in the liver, and unless you are careful afterwards you will not cure your patient. You should be careful about the diet and regulate it for several months.

FRACTURES OF THE LEG.*

By ISIDORE COHN, M.D., F.A.C.S., Professor of Clinical Surgery, Tulane University, New Orleans.

The following remarks are based on our observations in the treatment of fractures of the leg.

In reviewing our experiences, it is essential to divide the cases into the following groups:

1. Intra-articular fractures at the knee.
2. Fractures of the shaft of one or both bones.
3. Intra-articular fractures at the ankle.

The three groups are in turn divisible into subheadings, each subheading demanding a different procedure for ultimate recovery of the individual:

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

1. Intra-articular fractures may be of the sprain fracture type, complete or incomplete.

2. Complete impacted fractures of one or both bones.

It is needless to add that each of the subheads may be of the simple or compound type. In civil life, we have to do largely with the simple type.

By "sprain fracture" is meant those injuries which the patient may have considered rather lightly, and in which there is only pain or swelling about the knee; the injury is of such a nature that it does not completely incapacitate the individual. These cases are often overlooked, and a diagnosis of sprain made. The knee is strapped for a while, but when the strapping is removed, swelling about the knee persists. A certain amount of limitation of weight bearing is evident and the patient either seeks other advice, or you are humiliated by a subsequent X-ray which shows an incomplete fracture of one of the articular surfaces of the knee.

COMMENTS.

1. The old diagnosis of sprain is unjustifiable, unless fracture has been eliminated by radiography.

2. Radiograms must be made in several planes, otherwise a small, incomplete, or even a complete fracture acting as a loose body in the joint may be overlooked.

3. *When a patient with an injury to the knee presents a large amount of swelling which is soft and fluctuating, it is advisable to aspirate.*

This fluid has often been of a bloody character.

The advantages of aspiration are:

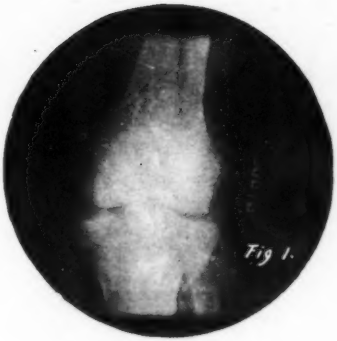
1. Distension of the capsule is prevented, (such a distension if permitted to persist, might lead to relaxation of the capsule and a consequent weak, wobbly knee).

2. There are no lymphatics within the capsule, hence absorption by natural methods would be slow.

3. Complete intra-articular fractures, which are small, act as a foreign body and had best be removed.

4. Early mobilization of the joint after such an operation is advisable.

5. Incomplete fractures should be immobilized by the use of non-weight bearing braces.



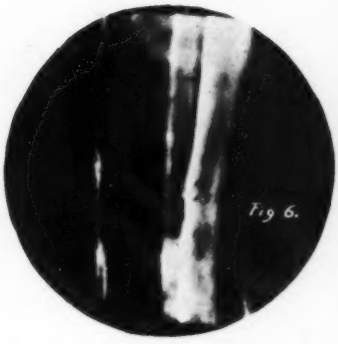
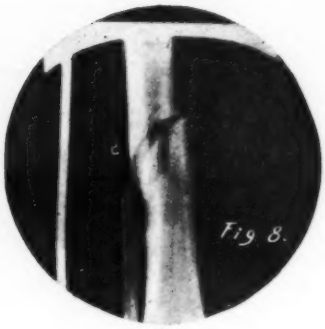


Fig. 1. Case Mr. D. Intra-articular fracture.
Fig. 2. Case Mr. D. After reduction.
Fig. 3. Case L. F. Before reduction.
Fig. 4. Case L. F. Result.
Fig. 5. Case Mr. W. Fracture of both bones of both legs.
Fig. 6. Case Mr. W.



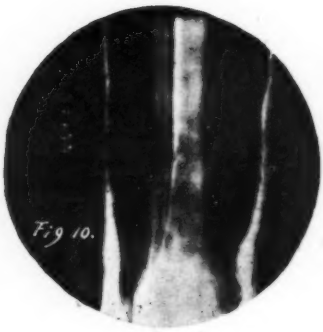


Fig. 7. Case Mr. H. W. K. Before reduction.
Fig. 8. Case Mr. H. W. K. After Thomas splint.
Fig. 9. Case J. F. Before reduction.
Fig. 10. Case J. F. After reduction.
Fig. 11. Mr. T. When first seen.
Fig. 12. Mr. T. After reduction.

Intra-articular fractures of both bones of the leg where there is an impaction or displacement, may be treated in one of several ways:

1. Non-operative procedures are desirable where possible. Of the non-operative methods, immediate reduction of deformity by traction, with aspiration at the time, and immobilization in plaster; or,

2. Continuous traction and suspension are the most satisfactory.

Reduction is essential where there is displacement, because a persistent displacement produces a change in the axis of the limb and a consequent genu-valgum. Continuous traction and suspension is the preferred method in cases where traction will do no harm, as suspension permits of early massage and mobilization of the joints, thus favoring an earlier restoration to the normal.

Occasionally one sees cases in which there is an associated pelvic injury. In such cases immobilization in plaster following reduction seems to be the method of choice. The after care of these cases is most important. Early mobilization and massage prevent atrophy and contractures. After eight weeks have elapsed and callus seems firm, it is neither fair to the patient nor right to expect the injured knee to be capable of sustaining the body weight. Artificial aid is needed and this is easily obtained by using the calliper brace.

FRACTURES OF THE SHAFT OF ONE OR BOTH BONES OF THE LEG.

One cannot generalize, because these cases vary in type and degree. We may see (1) Incomplete fractures of one or both bones, as illustrated in the case of E. J. L.

COMMENTS: In this type of case the treatment should be directed along the following lines:

1. Immobilization.

2. Frequent removal of cast for the purpose of giving contrast baths and massage, as well as mobilizing the neighboring joints. Weight bearing should be avoided until callus is firm.

X-ray pictures taken one year after the accident showed the old fracture line. It would be interesting to determine by a follow-up system, how long this is evident.

COMPLETE SIMPLE FRACTURES OF ONE BONE.

1. Case of L. F., age 4:

Result, August 16, 1921. Examination: No difference in contour of both legs. No difference in muscle power. No limp. Child plays all the time. Never complains.

Mr. W. 11/11/21. Diagnosis: Compound fracture of left tibia and fibula. Fracture of right tibia and fibula (at middle third).

COMMENTS: In this case the compound fracture was treated as a simple fracture after debridement. The patient was made to wear non-weight bearing braces. After their removal there was no deformity—no limitation of motion in either ankle or knee, and the muscles showed little evidence of atrophy. Weight bearing is perfect.

COMMENTS ON CASE OF MR. K.

A simple fracture where there has been great trauma and a consequent extensive ecchymosis and swelling, had best be treated by suspension and traction.

Sinclair's paste must not be used under a plaster cast. Pain, when traction is being used is indicative of too much traction. Close observation, varying the amount of weight, will relieve the patient and will avoid the necessity for many hypodermics of morphine. Pain always means too much weight, constriction or incomplete reduction.

COMMENTS ON CASE OF MR. F.

Age 65. Delayed union in the aged had best be treated by conservative non-operative means, of these, the simplest is the brace. The brace permits of massage, contrast baths and *some resistive exercises.*

Complete Compound Fractures.

Case of J. F. Age 11. November 23, 1920. Diagnosis: Compound fracture of both bones of left leg.

Patient wore a non-weight brace for two months. Result: Perfect functional result, no limitation of motion at ankle and knee. Weight bearing causes no pain.

Complete Compound Infected Fractures.

Mr. T. Age —. 11/15/20. Diagnosis: Infected compound fracture of lower third of tibia and fibula of right leg.

December 23. Patient left hospital with evident union but wounds not healed. Refused to stay.

COMMENTS.

In the treatment of all fractures of the leg, irrespective of the type, there are certain fundamental principles which must not be overlooked.

First, nowhere is restoration of normal anatomic relationship more important than in these fractures. Second, weight bearing is dependent on the normal mortise of the ankle which results from the undisturbed relation of the tibial astragaloid joint. Third, anything which alters the normal axis of the tibia and fibula, alters the relationship of the astragalus and the lower end of the tibia, and this interferes with weight bearing. This point has within recent years received attention through the efforts of Dr. E. H. Skinner. Skinner states that a plane which bisects the long axis of the tibia, should bisect the astragalus.

The value of this can hardly be overestimated. It is interesting to find that Sir Percival Potts in 1769 attached great importance to the undisturbed ankle joint for weight bearing purposes. It is important also to appreciate the fact that angulation of the tibial shaft following an incompletely reduced deformity, will materially interfere with weight bearing.

As the foot is displaced forward by an angulation, complete reduction or as near as possible is essential for weight bearing. The X-ray picture taken immediately after immobilization to determine the position of the fragments is essential.

By doing this, delayed operations, if operations must be performed, will be avoided. Operative interference, when decided upon, should be done early, because during the first ten days, osteogenesis is more active than later.

In the incomplete type of fractures it is only necessary to apply a cast from time to time and have the patient given massage when the casts are removed, mobilizing the neighboring joints at the same time. A caliper brace should be worn for at least three months.

Complete simple fractures of one bone, as illustrated in the case of L. F. and C. can, in most cases be reduced by traction tables properly used. Reduction had best be accomplished under the X-ray making use of the portable apparatus.

Simple fractures of both bones may usually be reduced in a simliar manner.

There are several methods of attaching the foot to the traction table: the Clove hitch; adhesive straps; canvas shoes with metal rings sewed in the axis of the limb; Sinclair's paste;

Sinclair's skate, and many more devices. The Clove hitch is dangerous if it is to be allowed to remain, as it almost invariably causes a pressure ulcer over the dorsum of the foot and over the tendo Achilles. Sinclair's paste, if used under a plaster cast, produces an irritative skin lesion.

To avoid pressure ulcers, the foot should be well padded, by using felt pads as well as sheet wadding over the dorsum of the foot and the heel.

The cases which have been cited, should prove that by properly applied traction, reduction can be accomplished by simple and conservative means. Thus far, it has not been necessary for me to resort to the use of plates or bone grafts in fresh fractures.

Of all the operative measures, the one which seems most valuable, particularly in the oblique or spiral fracture, is the Parham-Martin band. In practically all of the simple cases which I have seen, it has been possible by non-operative means to reduce the deformity, and to maintain reduction. Where there has been a great deal of primary swelling or skin irritation, a combination of suspension and traction has been used. One of the most satisfactory means of obtaining indirect skeletal traction, has been the ordinary tennis shoe with rings in the axis of the limb, to which traction straps can be attached.

Reduction having been accomplished, the cast should not be kept on longer than two weeks without removing the roof of the cast for inspection and massage. In the young, one can reasonably expect sufficient union at this time for the leg to move as a whole.

Massage, passive motion, resistive exercise and active motion are important elements in restoring the individual to his former muscular activity.

Too early weight bearing is productive of pain and future trouble, which can be avoided by non-weight bearing braces. The value of suspension methods should make them more generally adopted in hospital practice. Operative interference has been unnecessary in my experience thus far.

RADIUM IN THE TREATMENT OF MYELOGENOUS LEUKEMIA.*

By DRS. ADOLPH HENRIQUES and LEON J. MENVILLE, Department of Medicine, Tulane University.

The surface application of radium to the spleen in chronic myelogenous leukemia is not new. The literature of the past ten years contains references to the use of radium in leukemia and also refers to its use over the spleen. However there has been very little reported with regard to the dosage used and the technic of its application. The work of Ordway, which came to our notice after we had developed the method to be cited, appeared in 1917 and seems to be the principal method of procedure followed in this country. He cited one case which lived for eight months and to which he applied three series of treatments covering practically the entire surface of an immense spleen, making 29 applications in his first series, then 18 and 15 applications in the second and third series as the spleen diminished in volume.

We desire to report some observations, covering a period of eighteen months, in the treatment of chronic myelogenous leukemia by the surface application of radium over the spleen. We have refrained from earlier publication of the technic employed because we thought at least one year should elapse from the beginning of treatment before reporting our findings.

We believe that the dosage employed, the particular points of application and the intervals of treatment are original with us (Drs. Henriques and Menville and L. W. Magruder of our staff). One of the cases is in good condition eighteen months and another fifteen months since treatment began. A third case treated by this method by Dr. E. L. Irwin shows a similar improvement in the past eight months. We are indebted to the doctor for notes on the progress of his case.

Microscopic examination of the blood is necessary, not only for diagnosis, but also as an index of the effect of the radium applications upon the cellular elements of the blood and the progress of the cases. We wish to thank Drs. W. H. Harris and Andrew Friedrichs for the careful and numerous blood examinations as well as for their encouragement and valuable suggestions throughout these observations.

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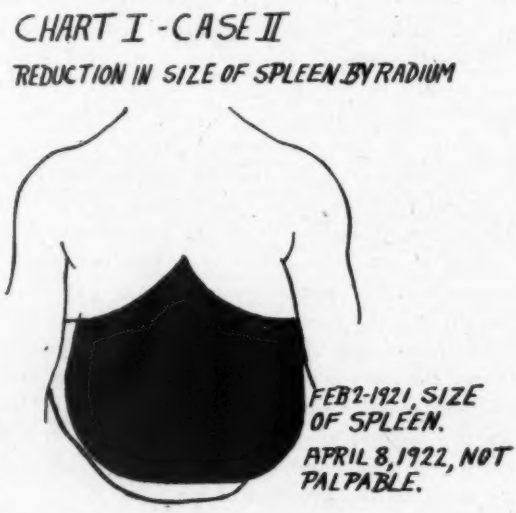
*Read before the Orleans Parish Medical Society Meeting, May 8, 1922.

Results. An enormous spleen, extending almost to the right lateral abdominal wall, almost to the symphisis pubis and protruding markedly both towards the front and the left, has been so reduced in size that it cannot be palpated fifteen months after treatment began.

The white cells have shown a progressive decrease to the neighborhood of 20,000. We hesitated to reduce further for fear of producing a leukopenia. The myelocytes have shown a marked reduction.

The red cells increased from the region of 2,000,000 to above 5,000,000 in a little over ninety days. This occurred in two cases. In a third case where no red count had been made at the beginning of treatment, the red cells at the end of seventeen months were 5,400,000.



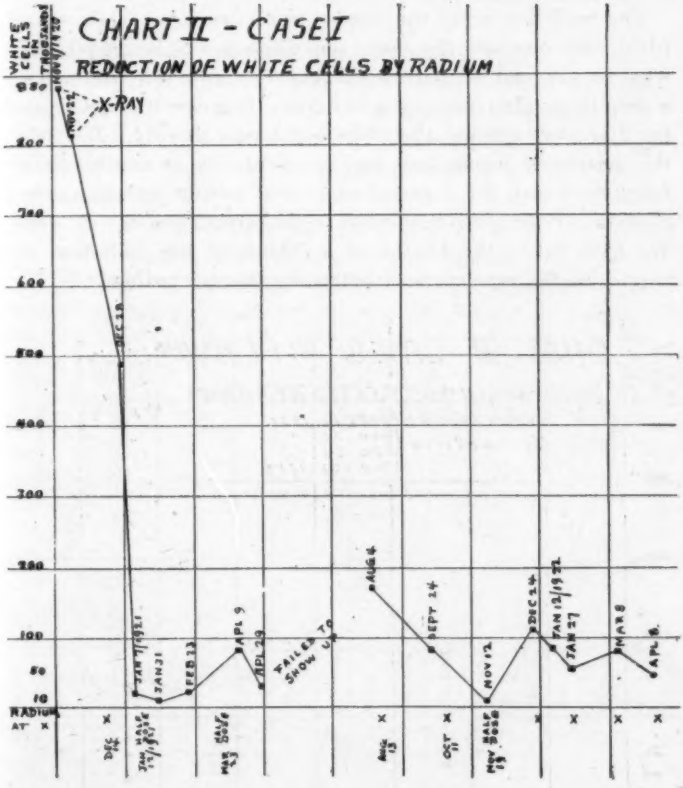
The hemoglobin has shown a marked rise.

Technic. These results were accomplished by a dosage of 2200 to 2400 milligramme hours spread over 4 areas near the centre of the spleen, through the skin, repeated monthly.

We treated the central portion of the enlarged spleen. We desired to secure an effect upon the spleen itself aside from the action upon the blood as it entered the spleen. Accepted usage in the application of radium claims that its principal effect

does not extend beyond a distance of six centimeters from the point of application. As a result of one series of applications, the enormous spleen contracted for 4 to 5 inches (10 to 12½ centimeters) from right to left and showed a marked reduction in other directions. By repeating the applications monthly the spleen continued to shrink so that it is no longer palpable.

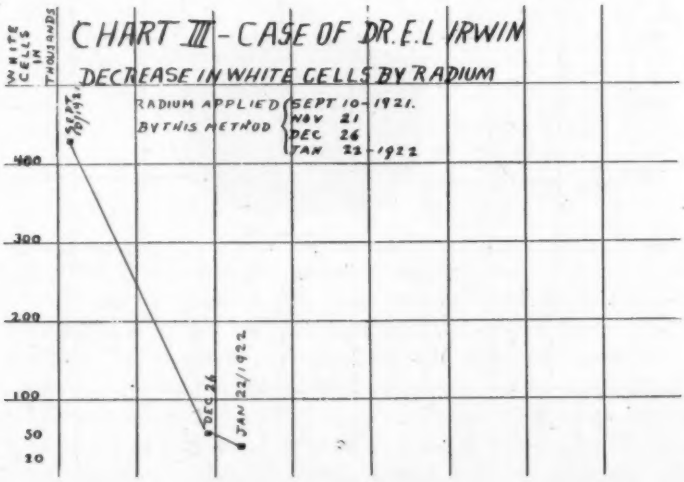
The dosage employed was 550 to 600 milligramme hours over each of 4 areas, a total of 2200 to 2400 milligramme hours. We used this dose as, acting upon the hypothesis that we were dealing with a condition considered by some pathologists to be neoplastic in character, we had found from previous experience that certain types of malignant disease yielded best to this dos-



age. The areas treated were one inch square and the radium elevated above the skin for a distance of ¾ inch and the rays filtered through 2 millimeters of lead. We used four areas because we wished to avoid any skin reactions and, we may add, that we were entirely successful in this.

The treatments were instituted monthly. We did this because we found that the maximum shrinkage of the spleen occurred in 3 to 4 weeks and later also noted that with the dosage used the white cells showed a tendency to rise after 4 weeks. Since we were able to effect such a profound palliative effect and restore to useful occupation cases which were incapacitated and rapidly going downhill we tried to maintain the palliation by these monthly applications. So far we have been successful.

The tendency is for the disease to recrudesce. When we applied only one-half the dose, the white count increased somewhat at the end of four weeks but this rise was followed by a drop upon administering a full dose. If a case was not treated for 2 or more months, the white count rose sharply. We tested this purposely in one case and involuntarily in another which failed to return for a period of several months although urged to do so. Both cases responded to the application of full doses. We have taken the liberty of speaking of the full dose employed as the myelogenous leukemic dose of radium.



If the disease is primarily in the bone marrow with metastasis in the spleen, how do we account for such a marked improvement in the blood-forming centers since only the metastasis was treated? During the course of the treatment, we observed the disappearance of metastatic nodules in both nipples of one patient, a male.

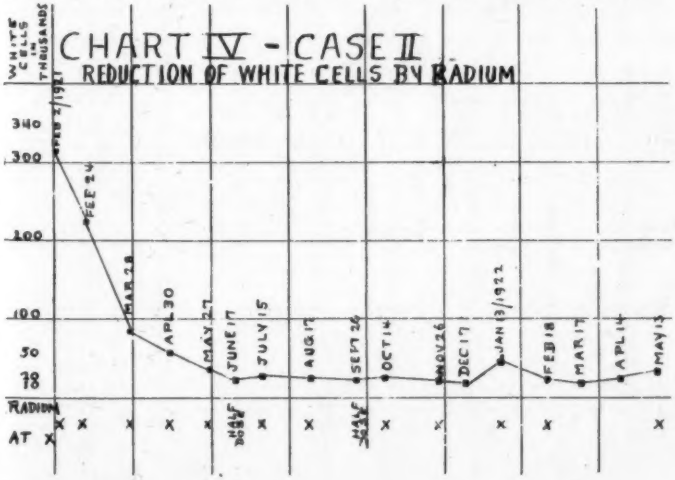
While ignorant of the function of the spleen, we thought that by inducing changes in the blood we might ascertain, to some extent, the effect of the spleen upon blood formation in bone marrow. Coincident with the rapid improvement in the general condition, the marked increase in hemoglobin, the rapid rise in red cellss, the progressive drop in the white count, the decrease in the myelocytes, indicate a profound influence of splenic origin upon the bone marrow.

The tendency to epistaxis was overcome. This is of interest in connection with the work of Stephan in shortening the coagulation time of the blood by treating the spleen.

At the end of a year's apparently successful control of chronic myelogenous leukemia, we were confronted by the following alternatives:

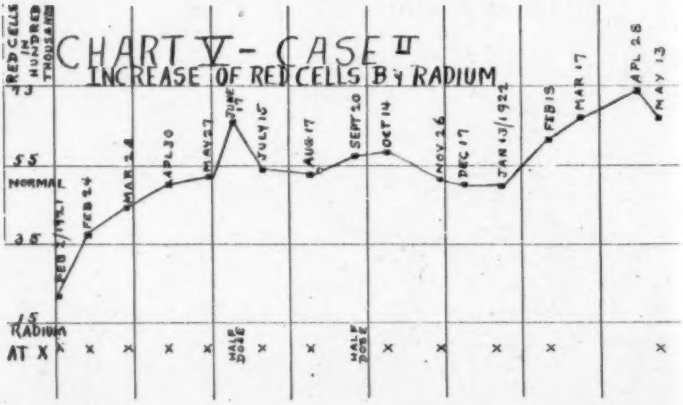
(a) To discontinue treatment, which would mean the inevitable recrudescence of all symptoms and death.

(b) To continue monthly applications for an indefinite period, a prospect by no meanse alluring for patient or doctor.



(c) To attempt to find, if possible, some means of diminishing the irritation of the leucoblastic centers and while this measure was being tried out, to control any marked rise in white cells by radium.

According to the pathology of this disease, the leucoblastic centers in the bone marrow are so overdeveloped that there results a mechanical crowding out of the erythroblastic centers. Now if this mechanical extermination were complete, then we would have an aplastic anæmia, without regeneratory forms of red blood cells. However the type of anæmia in this disease is such that there is an attempt at red cell production even though we have immature and deformed red cells present, such as normoblasts, anisocytosis and poikilocytosis. Theoretically, a retardation or retrogression in the growth of the leucoblastic centers in the bone marrow would be associated with an attempt on the part of the erythroblastic centers to regain the equilibrium or balance which Nature has established as the normal. This struggle would express itself then by a relatively diminished production of white cells during a certain period of time as compared with a relatively increased production during an equal period of time in which this depressant action was not at work. The red cells would show just the opposite, as they would show an increased production during this period of abeyance of leucoblastic growth. Our work along this line has been carried out for only three months and as we feel that a year should pass before anything definite can



be claimed, we will say nothing further at this time except to state that we are somewhat encouraged to proceed along the lines already started and to mention the fact that one of our cases has shown an increase in red cells from around 5,000,000 to 7,400,000, and another from 3,300,000 to 5,400,000.

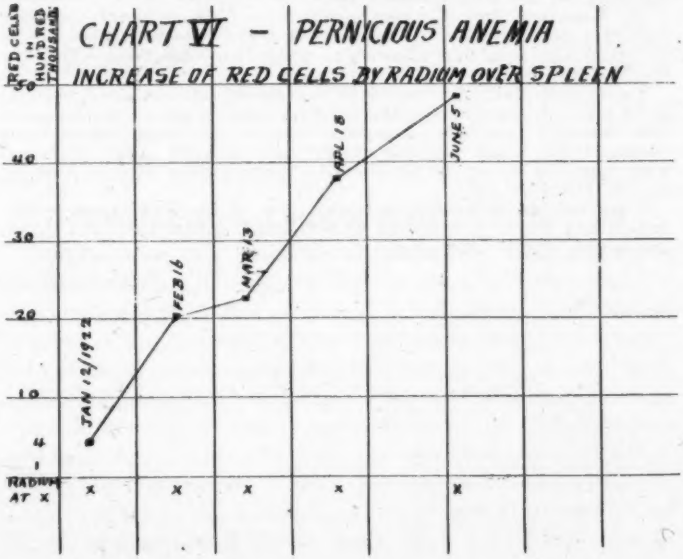
CONCLUSION: We believe that at present radium applied over the spleen offers the safest and promptest palliation for chronic myelogenous leukemia. By moderate doses, applied monthly, we not only diminish the white count but also exercise a certain regulatory action upon the splenic function and through it upon the hemopoietic system in general.

Radium applied over the spleen is a marked stimulus to red cell formation.

DISCUSSION.

Dr. A. L. Levin: I would like to ask Dr. Henriques whether it would be advisable to apply radium to the spleen in a case of Banti's disease? The case is a very interesting one: A child 12 years of age, who was admitted a day ago for the fourth time in a period of three years for relief from profuse hematemesis. The case, briefly described, is as follows:

In October, 1919, a child 9 years of age was found in bed early in the morning in a pool of blood. A year prior to this, the same thing happened. He was treated for malaria. When the case came under my observation, I found all the symptoms of a Banti's syndrome. In the course of one week, while in the hospital, he had



about twelve hemorrhages, each time losing a large quantity of blood. Various remedies failed to check the hematemesis until a donor was found and two transfusions of blood were given. Before the transfusion, his hemoglobin was 15%. He gradually improved and after nine weeks in the hospital, he was sent home. He recovered to such an extent that his general appearance, including the hemoglobin, was almost that of a normal child except for the large visible and palpable fibrosed spleen. When he was at his best, early one morning in December, 1920, he was again found in a pool of blood in bed and rushed to the Touro. Blood transfusion was again resorted to. After the second recovery, we advised the parents to have a spleenectomy done, but they refused. In January, 1922, he was again admitted for the same trouble. This time his recovery was not complete, but his parents insisted on taking him home after the hemorrhages stopped. His convalescence at home was of short duration, and two days ago he was re-admitted after having had two profuse hemorrhages at home. We are again trying to check his hemorrhages by blood transfusions.

Dr. Allen, through whose courtesy the case came under my observation, sees only one promising feature in the above case—spleenectomy.

If the application of massive doses of radium, applied according to Dr. Henriques' method in cases of myelogenous leukemia, causes a shrinking of the spleen, a marked increase in the red blood cells and a reduction in the whites, shouldn't we try the same method in the above case described by me? The only dangerous feature about this plan would be, the marked leukopenia which the application of radium causes and which is the interesting accomplished feature in myelogenous leukemia.

In Banti's disease, however, we are dealing with a relative leukopenia as a pathological feature. What will the application of radium do, then, to the white blood cells?

Dr. Guthrie: Drs. Henriques and Menville have presented their case in a very satisfactory way. It is a privilege we appreciate to be given the data and allowed to judge for ourselves. This the readers have done.

I am particularly interested in the record of the blood changes and I am a little proud that the two first cases of spleno myelogenous leukemia and lymphatic leukemia, respectively, upon which these characteristic blood changes under radio-therapy were observed, were reported by me before the Mississippi Valley Medical Association in October, 1903.

I am inclined to believe that radiations of the long bones is hazardous and should be resorted to only when radiations of the spleen and lymph glands have proven fruitless.

New Orleans Medical and Surgical Journal

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EDITORIALS.

THE AMERICAN LEGION AND THE DOCTOR.

Ovrshadowing the memories of hardships, disappointments, double dealings and other purely personal experiences of a more or less aggravating character, the excitement and turmoil incident to the American Legion Convention must have brought with it to the world-war veteran and particularly to the doctor, a sense of pronounced satisfaction and gratification. This elation and extra thrill sprang no doubt from the realization and first-hand knowledge as to what the celebrating was all about. The medical corps was a vital part of this great victorious army recently in our midst and to every individual who served in the medical branch of the army there must have come an

exhilirating, glad-I-was-in-it sort of feeling and a keener joy at being reminded that he had been literally part and parcel of the most stupendous undertaking of all times.

JOSEPH HOLT, PIONEER.

Crandall tells us that the doctor who reaches the age of eighty has been an optimist. Surely this was true of Joseph Holt. Born in our city in 1839, the years of his childhood were spent in Mississippi. Later, returning to this city he began the study of medicine at the Charity Hospital, where he was a resident student. He received his degree from the New Orleans School of Medicine in 1861. He served as surgeon under Lee with the Second Mississippi Regiment throughout the Civil War.

Joseph Holt was best known for his inaugurating the quarantine system of maritime sanitation, which has since become the recognized system throughout the world. He served Louisiana as president of her State Board of Health from 1884 to 1888. As president of the sewerage board in 1895 he broke ground for the laying of the first sewer main in the City of New Orleans. It was fitting indeed that so historical an occasion in the life of the Crescent City should have been presided over by a member of our profession.

At one time Dr. Holt served as professor of obstetrics in the New Orleans School of Medicine, but it was always as a sanitarian that he was best known. Having served the city of his birth as soldier, physician, sanitarian, and citizen, his death was felt keenly by all who loved him—for to know him was to love him. A scholarly gentleman of the old South imbued with a nature chivalrous, his like is not made every day. Well may we say, with John McCrae, that:

"Amid earth's vagrant noises, he caught the note sublime:
To-day around him surges from the silences of Time
A flood of nobler music, like a river deep and broad,
Fit song for heroes gathered in the banquet-hall of God."

H. W. E. WALTHER.

SOCIETY PROCEEDINGS.

PROCEEDINGS OF THE HOTEL DIEU STAFF.

Monthly Meeting for October, 1922.

The President, Dr. Homer Dupuy, in the Chair.

OSTEOMALACIA.

Case Reported by Dr. N. F. Thiberge.

Dr. Thiberge prefaced his report by calling attention to the rarity of osteomalacia in our country and to the particularly small number of cases in the male, recorded anywhere. The case was presented with X-rays by Dr. Fortier, confirming the diagnosis.

Dr. Thiberge said that A. D. R., in Hotel Dieu for the last four months, presented a complete picture of this terrible disease. He was confined to his bed with a green-stick fracture of the right thigh and a recent complete fracture of the left. He was unable to lift himself and any movement was very painful. His mind extremely clear, was in sad contrast to his helpless body. The left eye was bulging, the skull looked compressed laterally and projected anteriorally on that side; the skin was sallow, the frame emaciated, all movements so painful that one was afraid to touch him for fear of eliciting an involuntary muscular contraction. It was on an occasion like this that the last fracture occurred, all the other fractures shown in the pictures having occurred previous to admission. With the help of the nurse, he was changing his position, his legs were hanging on the edge of the bed, he turned to lay back, feared a fall and grasped the edge of the bed with the leg. There was a violent contraction of the left thigh muscles and he fell back in bed with a complete fracture at the upper third of the femur. After eight weeks this was not yet united and there was little evidence that it ever would.

The progress of the case had been gradual. His right leg first gave him trouble, there was pain and a slight limp. A careful examination at that time revealed a porous condition of the body of the lumbar vertebrae and a provisional diagnosis of spondylitis was made at that time. Shortly after this he consulted an osteopath, who administered vigorous massage—the sittings were painful in the extreme. When the patient was first examined the ribs were compressed laterally: the right thigh was bowed out; the pelvis was flattened; the neck of each femur met the shaft at 90° and practically all the bones showed a deficiency of calcium, as could be seen in the pictures. It was two years since the first symptom was noted. The calcium blood content was low and showed a still further loss at the last examination, notwithstanding the intravenous administration of calcium. Metabolism otherwise was normal; pulse pressure was 80 diastolic, 150 systolic. Appetite was normal. With the exception of a few hyaline casts in the urine, the organs were functioning apparently well.

No assignable cause could be found except a severe shock following the sudden death of his wife after an operation. In view of the

many cases reported due to insufficient or incorrect diet (l. c. e. m.) Dr. Thiberge considered that in this case worry, shock and grief may have altered digestion and assimilation and acted as a cause. Wassermann reaction was negative repeatedly.

The peculiar features of this case were the enlarged tables of the skull, as could be seen in the picture, the spacious sella turcica and an optic neuritis. Dr. Thiberge raised the question as to whether this might not mean a hypertrophy or tumor of the hypophysis. Injury to bone has been advanced as a cause, though it could be excluded in this instance. The endocrines have been accused (o. n. s. c.), though in this case, adrenaline, pituitrin, parathyroid and thyroid were all tried with discouraging result, except a slight influence on the fever. The blood count was 8,000 white cells and showed anisocytosis.

The diagnostic points in the case were these: The early involvement of all bones which some claim is characteristic in male patients[j]; the sallow skin[t], the pain, the characteristic appearance and the first complaint of the patient about his walk[p]; the pain and spasm of the muscles[s]—a similar case has been reported[r], where the long bones showed rarefication and the tables of the skull, *as in this case,* were thickened.

A diligent search showed but three[iv]. Some go so far as to deny its existence in the male[gs], while others[n] claim that it exists in a mild form frequently but is overlooked. Dock collected 11 female cases[h], another 15 cases up to 1915[v]. Brown reported 1 case in N. C.

OSTEOMALACIA. Showing bowing of femur and rarefied condition of whole bone, especially marked near the extremity. Note the calcarious condition of the femoral artery.

Treatment: Phosphorus and lime have been generously administered, so also the internal gland secretions, cod liver oil and a diet carefully selected rich in vitamines. So far 144 grains

of lime have been administered intravenously and 30 grs. of Cacodylate of Soda.

Results: Sleep improved, fever was reduced, pain and sensitiveness diminished; muscular power slightly improved by pituitrine.

In reaching a positive diagnosis the X-rays were helpful in excluding: Paget's disease; Arthritis and rheumatism; Osteoporosis, and Rachitis (epiphysical changes absent).

Dr. Thiberge concluded that the characteristic onset involving gradually all the bones, the spontaneous fractures, the porous bones, established the diagnosis of osteomalacia. The optic neuritis, the bulging and pain in the eye, the enlarged sella tursica, suggested strongly that there might be a close relationship between calcium metabolism and dysfunction or growth of the pituitary, while the slow march of the symptoms excluded malignancy.

Doctor Dimitry stated that the case report of Doctor Thiberge was very timely and should provoke much discussion as "the deficiency diet diseases" were receiving much notice by careful research study. Considerable information was being gathered from experimental work with careful scientific deductions. Dr. Dimitry thought that Mr. E. V. McCollum's recent contribution on "The Newer Knowledge of Nutrition" had added both by compiliation and investigation, very interesting information on these deficiency diseases.

The opthalmologists have for a long period of time recognized a deficiency disease in Keratomalacia and some very interesting work has been done in this disease. He thought that Dr. Thiberge was very thorough in his investigation, yet asked if he had a field of vision made, as he referred to a neuro-retinitis and a proptosis in the right eye. He wanted to know if there were any changes noticed in the sella. He also requested further information on the blood study.

Dr. Maurice Gelpi understood that there were a number of other X-ray pictures of the case, which formed a valuable part of the record. It was most unfortunate that all the pictures were not made available to be seen and studied by the staff. For instance, in the case of the head, it would have been most inter-

esting to investigate the contour and size of the sella and note the changes in the tables.

Dr. Thiberge requested that the additional films of the case be produced, and they were demonstrated by Dr. Gately. In closing he emphasized the fact that pituitrin had been persistently used for two or three weeks, twice a day, by hypodermic, in full doses. It was discontinued on account of lack of response and high pulse pressure. He felt that McCollum's book on nutrition was masterly but did not discuss osteomalacia specifically. Fat soluble vitamins were generously administered. Metabolic studies were made by Drs. Couret and Mayer.

Dr. Thiberge presented to the Staff the complete bigliography on Osteomalacia as obtainable in the library of the Orleans Parish Medical Society.

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PROCEEDINGS
OF THE
TOURO INFIRMARY STAFF.

Monthly Meeting for October, 1922.

The President, Dr. C. Jeff Miller, in the Chair.

CARCINOMA OF THE LARYNX.

Dr. Matas reported a case of carcinoma of the larynx treated by total laryngectomy.

Record 96362 was read by Dr. Bodick, the interne on the service.

Mr. L. W. Y., of Tylertown, Mississippi, age 64 years, all his life a farmer and resident of his county, was admitted to the Touro Infirmary on April 5, 1922, discharged May 17, 1922. The personal history and previous history is irrelevant except that his mother died of carcinoma of the uterus and his paternal grandmother, of some form of carcinoma. His history is free from any venereal taint, and he has a negative Wassermann. History of present illness began five months ago when the patient noticed that his trouble was a slight hoarseness. There was also a slight cough, which he said was voluntary in order to clear his throat. There was no history of any persistent sore throat or pathology in the upper respiratory tract and no pain. The hoarseness has grown worse, the patient gradually losing his voice until the state of complete aphonia was reached. Throughout his illness there has been no pain or discomfort other than the loss of his voice. The medical attention he has had before coming to the hospital has been negative. He was examined previously about one week before admission by Dr. O'Kelley who established the diagnosis of carcinoma of the larynx. Since his admission, April 5th, 1922, he has been carefully examined by Dr. Kearney, who confirms the diagnosis.

Operation April 11th, 1922.

The operation was begun as an exploratory laryngo-fissure to determine the extent of the neoplastic infiltration and terminated in a complete laryngectomy.

The operation was continued thruout with local and regional anesthesia with the Dunn infiltration apparatus. The middle line was injected from hyoid to sternum, then some middle line injections were made to reach the superior laryngeal nerves

above, and the thyro-hyoid membrane to control the sensibility of the organ, then further, laterally, to control the transverse branches of the cervical plexus and also the deep nerve supply of the laryngo-pharyngeal junction. With this anesthesia, an incision was made in the middle line, extending from the hyoid bone to about 1½ inches above the sternal notch. Two skin flaps were then dissected back laterally including the platysma myoides and deep cervical fascia. The anterior border of the thyroid was clearly exposed with the cricoid in the midline. The cartilage was divided throughout its length. On retraction of the divided thyroid, the interior of the larynx was clearly exposed without any great reflex disturbances on the part of the patient. The breathing continued normally with comparative ease and very little cough. It was seen that the neoplasm occupied the right half of the larynx and included the ventricle and right vocal cord and extended back to the aryteno-epiglottic fold. When this had been decided dissection of the larynx began by complete detachment of the laryngeal box from all its surroundings, taking care to detach the overlying muscles only at the point of attachments of the cartilage and preserving the musculature as perfectly as possible. After dissecting the larynx as far back as the pharyngeal junction, the cricoid was dissected clearly from before backwards, and then the trachea divided transversely at the pharyngeal junction. The larynx was then lifted up and the posterior surface very carefully detached from the pharyngeal wall which was preserved intact until the glottic opening was reached, when the communication was necessarily exposed. The larynx was still further dissected away from the thyrohyoid, the great cornua of the hyoid being cut with bone forceps and allowed to remain behind. The entire larynx in this way was completely removed with the least damage to the pharyngeal wall and with an opening in the pharynx reduced to the strictest minimum. The tracheal opening was now brought forward to project beyond the level of the cutaneous incision so that contamination could not take place from the tracheal secretions. The pharynx was then thoroughly wiped out and the pharyngeal opening was carefully sutured with chromic gut in a way that the mucous surface projected within the pharyngeal side. This first line of suture was reinforced with a second line which included some of the pharyngeal muscles and this was

again reinforced by overlapping muscular flap consisting of the muscles of the sternohyoid group, giving security to the line of suture. The tracheal orifice was now brought down to the lower angle of the wound anchored to the skin and fascia. The deep muscular layers above this were then united with interrupted catgut sutures, leaving a tubular drain that extended to the depth of the wound as high as the hyoid level, after which the cutaneous incision was closed by a series of interrupted silk worm sutures. The operation was continued with practically no pain. The patient never gave any evidence of suffering. Hemostasis also was very satisfactory, all vascular points being ligated separately.

The wound was dressed in the usual way with sterile gauze and a very firm circular gauze collar, leaving the trachea opening exposed. Finally, a feeding tube was left in the stomach projecting through the nose with the expectation that it would remain until the pharyngeal opening had closed. Through this tube the patient was at once given a supply of cold water and other refreshments. As a whole, the operation was very satisfactory and seemed to be associated with very little disturbance.

POST-OPERATIVE NOTES:

Laryngectomy performed April 11th, 1922, for carcinoma. On April 13th the wound showed a purulent discharge with puffiness about the suture line. Superficial sutures removed for drainage and Dichloramine T. pack inserted and changed daily. On the 16th, Peroxide injected into the wound appeared as foam in the pharynx showing that there was an opening thru and thru. Considerable superficial sloughing occurred in upper angle of wound, but by the 20th the edges presented a more healthy appearance. By the 26th, the slough had apparently entirely separated but the opening into the pharynx remained, also a tunnel under a small bridge of skin between the lower end of incision and the tracheotomy opening.

Dichloramine T. was used while there was infection but for the past week Balsam and oil has been used. Examination, May 4th, 1922, showed that a probe introduced from the upper angle of the wound still passed into the pharynx but the tract is much smaller. The tunnel at the lower end has become closed and covered by healthy skin. Tracheotomy tube used throughout and

it has been well tolerated. For feeding a nasal tube was used from the first because of leakage of food from the pharynx into the wound. This method has served very well and the patient seems quite comfortable with it. He has gained in weight and appears much better than before. Packing of the wound has been discontinued and the tract to the pharynx allowed to close.

On the 9th the patient was allowed to drink about ½ glass of water and careful observation of the external opening into the pharynx failed to show any leaking of fluid.

On the 10th, nasal tube was removed and feeding began by mouth. No leakage of food but there was slight stiffness on swallowing.

On the 15th, it was reported that after removing the nasal tube patient was able to take liquids and later full diet with slight inconvenience—stiffness of throat in swallowing is the only thing complained of. There has been no leakage of food thru the opening into the pharynx. Patient was discharged from hospital on May 17th, 1922, in very good condition.

Dr. Kearney examined the patient laryngoscopically on May 13th, 1922, and reported as follows: "The picture in the laryngoscopic mirror shows the epiglottis intact. The pharynx is funnel shaped, ending with the walls in apposition at the lower end of the epiglottis, this appearance being due evidently to obliteration of the pyriform sinuses by the closure of the pharyngeal opening during laryngectomy. On attempted phonation a little deeper view is obtained showing a slight roughness of the anterior wall below the lower border of the epiglottis, at the site of the glottic aperture. There is no evidence of any new growth. The esophagus does not drain the secretions in the normal manner as there is an accumulation of a dram or so of saliva at the bottom of the pharyngeal funnel.

Dr. Matas stated that this experience was instructive in several ways. First, the recovery of the patient with his perfectly healed wound showed (with other cases in his experience) how an operation which less than 20 years ago was followed by a mortality of 60 and 75 per cent, has now become comparatively benign; second, the factors in this reduction of mortality, as illustrated in this case are (1) local and regional anesthesia; (2) the avoidance of secondary food infection by the use of a

feeding gastric tube introduced through the nose, this being allowed to remain until the healing of the pharyngeal wound is assured. He felt that this post-operative feeding by naso-pharyngeal intubation was a decided improvement in the post-operative treatment.

It was admirably borne by this patient and it kept food and drink from contaminating the peritracheal tissues, and especially avoided a possible pneumonia from the penetration of food and septic fluids into the trachea. At one time he believed it was necessary to perform a laryngectomy in two stages; the first, to isolate the larynx and trachea by dissection, and, secondary, packing of the peritracheal space with iodoform gauze. This was allowed to remain almost one week when the second stage, which completed the extirpation of the larynx was performed. By this preliminary packing of the peritracheal space until granulations had formed, secondary cellulitis and mediastinitis, which had proved so fatal in the past, was avoided. This suggestion of Crile's was a decided advance in the technic and gave very satisfactory results. This case, however, showed that by resorting exclusively to nasopharyngeal tube feeding this packing was not essential to success, even though infection might occur in the wound through failure of the pharyngeal wound to unite, or to necrosis of a part of the posterior segment of the tracheal ring, as in this case.

The third instructive fact which he believed would be established by this patient, in the course of time, as was already demonstrated by another patient, was that total laryngectomy may be followed by an audible and clearly intelligible voice and speech without any artificial aids.

A few weeks ago he exhibited a patient at one of his Charity clinics, on whom he had performed a total laryngectomy for cancer with secondary glandular metastasis. This patient has now survived over 8 years since the operation without recurrence. He was a hard working laborer, and his speech was quite clear and intelligible at ordinary conversational distance without any artificial phonatory helps whatever.

NEWS AND COMMENT.

American Legion National Convention at New Orleans, October 16-20. It was noted that many physicians and nurses attended the convention either as individuals or with their respective units. Numerous reunion luncheons and dinners were held on Divisions Reunion Day, October Seventeenth. Among these celebrations was that of Evacuation Hospital No. 14, headed by Dr. Louis Weaver, of York, Pa., at Galatoire's.

Among the many "Voyageurs Militaire" attending the Third Promenade of La Societe Des 40 Hommes et 8 Chevaux, were a number of our confreres from distant voitures. The local voiture was represented by Drs. Trepagnier, Otis and Genella.

The Catherine Dent Post should be commended for their untiring interest and assistance in making the convention a success. They should be complimented also for their appearance and numbers in the parade.

Serving on the various committees were Drs. Frank J. Points, John B. Elliot, Jos. A. Danna, W. J. Otis, Muir Bradburn, S. F. Braud, Chas. E. Verdier, Maj. Leopold Mitchel, Paul T. Talbot and Herbert Page.

Considering the fact that the Legion is really the army without the restraint of officers and regulations, and in view of the fact that in New Orleans as elsewhere it was noticed that prohibition did not altogether prohibit, be it said to the credit of the Legion that the general behavior was gratifying and the "casualties were few."

The Central Council Social Agencies, at their meeting on Tuesday evening, October 24th, discussed Medical Social Service from various viewpoints. Those taking part in the discussion were Dr. Spelman, Superintendent of Touro Infirmary, and Miss Bachman and Dr. Walter J. Otis, representing the Social Service Department of Charity Hospital.

In the Sixth Congressional District. The second meeting of the Sixth Congressional District Medical Society was held at the Elks' Home in Donaldsonville, October 11th. There were 68 members present. The following papers were read and liberally discussed: "Headaches Due to Cervical Arthritis," Dr. C. S. Holbrook, New Orleans, La.; "Two Unusual Surgical Liv-

ers," Dr. R. C. Kemp, Baton Rouge, La.; "Granuloma Inguinalae," Dr. D. T. Martin, Donaldsonville, La.; "Hygienic Marriage Law" (20-minute address), Dr. R. M. G. Carruth, New Roads, La.

Doctors Paul Gelpi, Geo. Dempsy, C. V. Unsworth, E. Block, L. Fossier, P. T. Talbot were guests of the society. Dr. George Dempsy elucidated some points on vital statistics, which proved very interesting.

Following the scientific session the society adjourned to the Hotel Donaldson, where dinner was served, after which the members and guests visited the fair.

In the Seventh Congressional District. The quarterly meeting of the Seventh District Medical Society was held in Lake Charles, Louisiana, Thursday, September 28th, 1922. The president, Dr. N. S. Craig, of Jennings, Louisiana, presided with about fifty members present. The Society was honored by the presence of Drs. Paul J. Gelpi, John B. Elliot, Jr., and W. W. Butterworth, of New Orleans. Dr. Warren G. Young, of Jennings, La., read a paper on Mediastinal Tumors, reporting a case with X-ray demonstration. The paper was discussed by Drs. G. F. Edwards of Lafayette, La., and Dr. G. C. McKinney of Lake Charles. Dr. Butterworth gave a talk on Congenital Lues, laying particular emphasis on the history, symptoms and differential diagnosis. Dr. John B. Elliot talked on Continued Fevers and their differentiations. Dr. E. M. Ellis of Crowley, La., reported three cases of Tables treated with intraspinal injections of mercury. Dr. Paul J. Gelpi, President of the Louisiana State Medical Society, of New Orleans, talked on Organization. A general discussion followed each address. After the meeting the Calcasieu Parish Medical Society entertained at a special banquet with music at the Majestic Hotel. The next meeting is to be held during December in Crowley, Louisiana.

At the Charity Hospital, New Orleans. Ward 7 has been completely repaired and is now receiving patients. An experiment is being tried out in this ward by placing sheet rock around the walls. This has been done with a view to eliminating the discoloration of the walls due to the ascent of moisture into the plaster. The results of this experiment will be closely watched in order to determine whether it would be advis-

able to place sheet rock along the wall of the Main Building. Recorders have been placed on the sterilizers in the Miles Ampitheatre and the Delgado Operating Rooms. This instrument indicates the vacuum and registers on a dial the amount of steam pressure for a given time. It also registers the time of each sterilization. Charts are removed each morning. This furnishes a complete and accurate check of the sterilization.

The number of patients in the hospital is unusually high, there being 1098 patients today, October 25th. The peak was reached when we had 1106 patients in the hospital. This number is fully two hundred more than the average.

In the Eighth Congressional District there are three important institutions, namely: The Baptist Hospital at Alexandria, the U. S. Veterans' Hospital No. 27, Camp Stafford, and the Louisiana Hospital for the Insane, at Pineville.

The clinical work in each is conducted by a respective Staff Unit, and it is planned to make reports from the proceedings of one or another of these units, for each number of the Journal. For various reasons, however, it was impossible to obtain an official report from any of these in time for the November issue.

Elaborate improvements are in process at the Veterans Hospital, where the war time emergency buildings of the old Base Hospital are being gradually replaced with structures of more permanent construction. Among the completed projects, the mess halls and kitchen, destroyed by fire last year, have been replaced at a cost of $65,000, and a new water supply system has been installed at a cost of $20,000. This includes a 75,000 gallon gravity tank, with a 150,000 gallon base reservoir. In addition to the above, a Chlorinating apparatus for the water supply of the station, has been approved and will soon be installed. With present equipment a repetition of last years disastrous fire is hardly possible.

The following approved projects are now in process of construction:

1. Replacement of wooden footings under buildings with concrete footings $25,000
2. Disposition of surface drainage 22,500
3. Construction of runways, sheltered, etc. 3,000

4. Remodeling of Commanding Officer's Quarters ... 400
5. Remodeling of wards 5,000

There are two important features to the last item of construction, *First*: the Hospital now has an adequate supply of Isolation Units for the proper control of any contagious epidemic, such as Influenza or Meningitis.

Second: there is a large open Tuberculosis ward, completely screened in on four sides, and provided with ample protection against inclement weather.

In addition to the above building construction and extensions, additional toilet facilities have been recommended, carrying an expenditure of approximately $50,000.

This item has not yet been approved.

THE FIRST ANNUAL FAIR for the whole of Central Louisiana was held at Alexandria during the entire week of October ninth. The Public Health Exhibit occupied a booth at one of the entrances to the main permanent building. Demonstrations and instructions were given in Sanitation, Disease Prevention and Child Welfare. Venereal Disease work was featured by literature, apparatus, and the stock solution of Arsphenamin, which was developed in an Alexandria Laboratory where it has been used for over three years without accident.

On Friday, October thirteenth, nearly two hundred babies were examined at the Baby Conference by a staff of local doctors assisted by Miss Reed and Miss Merrill, respectively of the Lake Charles and Alexandria Public Health Units. It was universally regretted that Dr. Maud Loeber was prevented from attending by illness. Dr. Abbott was also kept at home by illness.

Dr. G. M. G. Stafford has returned to his home in Alexandria and resumed practice, after several weeks absence in Southern California.

Dr. Marvin Cappel spent the week of October sixteenth in New Orleans attending the American Legion reunion.

AT TOURO INFIRMARY. Touro Infirmary announces the appointment of an additional Assistant Superintendent in the person of Mr. Carl A. Brimmer, who will report in New Orleans about November first. Mr. Brimmer was formerly a Public Accountant and comes well recommended from the hospitals

in which he has served his last post being Assistant Superintendent, University Hospital of the State University of Iowa.

The plans for the new Touro Annex are rapidly developing and it is expected ground will be broken about January 1st. Recent inspection of the new hospital building development in the east by Dr. Spelman discloses the fact that Touro plans have either incorporated all the new features of modern hispital construction or have considered and discarded them to meet local exigencies. The new development will include a modern dispensary plant and an entire floor to be devoted exclusively to the care of Obstetric cases.

Dr. Rudolph Matas is at present sojourning on the Continent, but vacations, as a whole, are over and Touro Staff is carrying its full complement of doctors.

THE TENTH CONVOCATION OF THE AMERICAN COLLEGE OF SURGEONS was held in Symphony Hall, Boston, on October 19th. The annual meeting of the Fellows of the College was called at 3:00 o'clock on the afternoon of October 27 in Jordan Hall. The annual election of members of the Board of Governors occurred at that time.

THE REGULAR QUARTERLY MEETING of the Lafourche Valley Medical Society, was held in Thibodaux on Tuesday, August 8th, 1922. The attendance was good. The program was incomplete on account of the unavoidable absence of two of the essayists. Dr. H. C. Dansereau of Labadieville discussed "Angina Pectoris."

The visitors present were: Dr. W. Wild, of Minnesota, and Dr. J. C. Dempsey, of the La. State Board of Health. The latter addressed the meeting on the urgent necessity of registering all births, deaths, marriages and divorces.

After the scientific session the doctors assembled at Hotel Jefferies where an enjoyable banquet was served.

THE INNOVATION INTRODUCED at the Clinical Congress of the American College of Surgeons in Philadelphia last year, in that the first day was devoted to a Hospital Conference, was duplicated at the Congress of the College in Boston, on Monday, October 23, the first day of the Congress. The morning session was devoted to the reading of papers on standardization and

other hospital problems, while the afternoon session was confined largely to discussion of the minimum standard.

REMOVALS: Dr. D. N. Silverman, from 630 to 624 Maison Blanche.

Dr. L. R. De Buys, from 3439 St. Charles Ave. to 1437 Delachaise St.

Dr. W. P. Tilly, from 802 Maison Blanche Annex to St. Rita Surgical Infirmary.

Dr. Isadore Cohn, from 1211 Maison Blanche to 1522 Aline St.

Dr. T. A. Maxwell, from 1210 Maison Blanche to 207 Maison Blanche Annex.

Dr. C. Jeff Miller, from 405 Medical Bldg. to 512 Hibernia Bank Bldg.

Dr. H. E. Miller, from 405 Medical Bldg. to 512 Hibernia Bank Bldg.

Dr. E. L. King, from 416 Medical Bldg. to 512 Hibernia Bank Bldg.

Dr. Gayle Aiken, from 411 Macheca Bldg. to 1225 Second St

Dr. H. Bayon, from 1235 to 1122 Maison Blanche.

Dr. F. L. Fenno, from 1123 Maison Blanche to 407 Medical Bldg.

Dr. P. A. Moore, from 105 Chartres St. to Godchaux Bldg.

Dr. E. J. De Bergue, from 2024 Carondelet St. to 2232 Magazine St.

Dr. Upton Giles, from 3439 St. Charles Ave. to 3621 Prytania St.

Dr. A. Ledoux, from 1218 Maison Blanche to 2007 Esplanade Ave.

Dr. G. M. Graham, from Woodworth, La., to Kinder, La.

Dr. I. E. Seiss, from Alexandria, La., to Alco, La.

Dr. F. T. Beatrous, from 1232 to 1210 Maison Blanche.

BOOK REVIEWS AND NOTICES.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.

The Management of the Sick Infant, by Langley Porter, M.D., M.R.C.S. C. V. Mosby Co., St. Louis, 1922.

Differing from the usual text books on pediatrics in that it deals exclusively with the management of sick infants and does not include childhood, this book constitutes a departure from the older order. The authors have well succeeded in their aim to aid practitioners in this field of work by the up-to-date and yet conservative handling of this subject. The question of feeding is broadly handled and speaks for a large experience and knowledge. The section on diagnosis and differential diagnosis is admirably elucidated by excellent illustrations and will prove of real value to students and practitioners especially. The book will be welcome, and will prove of vaue to all who are interested in the caring of infants.

J. S.

Hughes' Practice of Medicine, Twelfth Edition, by R. J. E. Scott, M.A., B.C.L., M.D., P. Blakinston's Sons & Co., Philadelphia.

An enormous amount of information is contained in this small volume. In its general arrangement and scope, it conforms to the conventional works on practice, except for the addition of a section on diseases of the skin. The book, though not a compends, is too brief to be recommended to students, but should be of great value to the busy practitioner, who wishes a rapid, accurate and concise reference to refresh his knowledge.

C. J.

PUBLICATIONS RECEIVED.

C. V. Mosby Company, St. Louis: Elements of Scientific Psychology, by Knight Dunlap; Physiology and Biochemistry in Modern Medicine, by J. J. R. McLeod, M.D., fourth edition; Physical Diagnosis, by W. D. Rose, M.D., third edition.

Washington Government Printing Office, Washington, D. C.: United States Naval Medical Bulletin, Vol. 17, No. 4, October, 1922; Public Health Reports, Vol. 37, Nos. 36, 37, 38, 39.

Miscellaneous: Ophthalmoscopy, Retinoscopy and Refraction, by W. A. Fischer, M.D., F.A.C.S.; International Health Board, The Rockefeller Foundation, Eighth Annual Report, January to December, 1921.

Reprints.

United States Steel: A Corporation with a Soul, by Hon. Will R. Wood; A New Suggestion in the Treatment of Puerperal Eclampsia, by Capt. J. T. Ainslie Walker, R.A.M.C. (T.F.); The Way of Progress, Debate in the United States Senate; Man the Erect and Cancerous, by R. C. Kelsey, M.D.; Public Health No. 729.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for September, 1922.

CAUSE	White	Colored	Total
Typhoid Fever	1		1
Intermittent Fever (Malarial Cachexia)		1	1
Smallpox			
Measles			
Scarlet Fever			
Whooping Cough			
Diphtheria and Croup	3		3
Influenza	3	2	5
Cholera Nostras			
Pyemia and Septicemia			
Tuberculosis	28	25	53
Cancer	29	9	38
Rheumatism and Gout			
Diabetes	5	1	6
Alcoholism	1		1
Encephalitis and Méningitis	4	2	6
Locomotor Ataxia	1	1	2
Congestion, Hemorrhage and Softening of Brain	24	11	35
Paralysis	2	1	3
Convulsions of Infancy	1		1
Other Diseases of Infancy	12	15	27
Tetanus		1	1
Other Nervous Diseases	4	2	6
Heart Diseases	42	32	74
Bronchitis	2	1	3
Pneumonia and Broncho-Pneumonia	15	10	25
Other Respiratory Diseases		1	1
Ulcer of Stomach		1	1
Other Diseases of the Stomach	3	1	4
Diarrhea, Dysentery and Enteritis	15	7	22
Hernia, Intestinal Obstruction	5	2	7
Cirrhosis of Liver	3	3	6
Other Diseases of the Liver	4	2	6
Simple Peritonitis			
Appendicitis	11	2	13
Bright's Disease	13	20	33
Other Genito-Urinary Diseases	3		3
Puerperal Diseases	10	3	13
Senile Debility		1	1
Suicide	6	1	7
Injuries	16	11	27
All Other Causes	37	34	71
Total	303	203	506

Still-born Children—White, 27; colored, 16; total, 43.

Population of City (estimated)—White, 295,000; colored, 110,000; total, 405,000.

Death rate per 1000 per annum for month—White, 12.32; colored, 22.14; total, 15.01. Non-residents excluded, 12.77.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmospheric pressure 30.00

Mean temperature ..... 81.

Total precipitation ..... 0.93 inches

Prevailing direction of wind, southeast.